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Revelations: the analysis and synthesis of images

F. Scanlon

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All languages have a structure; this reflects inescapably the way the originators of the language view the structure of reality. So we unconsciously structure reality according to the language we use.

Alfred Korzybski

REVELATIONS,
the ANALYSIS and SYNTHESIS
of a
PICTURE

Thesis Report of F. William Scanlon
May, 1967

College of **Fine and Applied Arts**
Rochester Institute of Technology

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Art is a lie that makes us realize truth.

Picasso

Thesis Proposal
of
F. Wm. Scanlon
for
GRAPHIC COMMUNICATIONS, AD5, '66/'67
Prof. H. Barschel

Approved by Graduate Committee,.....
Chairman,

R.I.T., School of Art & Design
College of Fine and Applied Arts

Submitted by:

Advisor: H. Barschel

Jan., 1967.

Tech. Advisor: Donald Robertson

2/3/1967

THESIS TITLE

REVELATIONS; the analysis and
synthesis of images.

PURPOSE

To devise a modern and appropriate way of
evaluating visual art.

To demonstrate in a non-verbal language, the
analyses of images in terms of their graphic,
tonal, and subliminal form qualities.

To provide a motion picture that will demon-
strate how at least I can see an image in
different ways. This graphic safari through
a picture will be designed essentially for
'non-visual' people, and for beginning courses
in art.

INCENTIVE

In my experience with formal courses in art,
design or graphics, the analysis of a given
image has been mostly restricted to traditional

kinds of verbalization, and as such, has been of similar value as a text book.

I hold that these kinds of methods make verbal maps, and bear a special kind of relation to a 'real' picture that limits the communication and understanding of the design functions. This special relationship is not a picture, and can never replace one linearly. It is a 'one way' translation of an image into a different symbol system that has no physical referents. Words are not things, but pictures are things, and there is no adequate means of translation between the two when definition is sought.

When meaning is required for a word we start with the dictionary and go from there. As words have no meaning other than that intended by a user, the dictionary offers at best a clue.

Pictures also have no meaning except that which is evoked in a viewer. That meaning, like words, is based on the memory and experiences in the mind behind the eye. In order to increase the vocabulary in words we practice using them. In order to increase the vocabulary in vision, for many it is an extended frustrating experience of listening

to boring discourses on such metaphysical subjects as aesthetics, et al.

My proposed solution to some of this dilemma is to avoid verbosity, and through image relationships in time montage , explain how I come to know a picture within my experience range.

SCOPE

This work will involve the development of ideas relating to an objective separation of subjective picture elements. By this I mean actual physical processes of dividing a picture without the obvious knife and scissor approach, then using the parts to verify suspected subliminal shapes and relations. Sergei Eisenstein's concepts about MONTAGE will require thoughts about application for this instance.

I see the future of this approach as a valuable addition to 'progress' in the teaching of seeing in any field of graphic communication or visual art.

PROCEDURE

A photograph will be selected

that provides relatively complex and interesting graphic manifestations to this particular approach in image understanding. Following this selection, prints will be made for sequencing which will have the following physical character:

- low, normal, high in value range.
- above ranges in different appropriate densities.
- negative prints.
- Sabattier effect prints of different generations.
- derivatives (drawings and graphics).

Some of these prints will be used to produce, via tracing paper, isolated drawings of the highlight, midtone and shadow areas. A 'shooting' script will be drawn up and the images sequenced on 16mm motion picture film in the following style: (tentative)

- original picture, 240 frames, 10 sec.
- close-ups of selected graphic interests, 24 frames each, 1 sec. plus.
- reversal of image values, repeat some of above.
- inversion, symmetric reversal etc., 48 or 96 frames each, 2-4 sec.
- tonal isolates, 120 frames each, 5 sec.

These will continue in some sensible order until the deviations are exhausted, then

the normal original print will make the trailer
so the viewer may see the picture with new
knowledge.

ROCHESTER INSTITUTE of TECHNOLOGY

OFFICE MEMORANDUM

SUBJECT Thesis Approval

DATE December 19, 1966

MEMORANDUM TO William Scanlon (Art and Design, 5th year)

The Graduate Committee has approved your Thesis "Revelation--the Analysis and Synthesis of Images," and Professor Hans Barschel has been named as your adviser. Please meet with him and arrange for the procedures to be followed in the development of your Thesis.

I trust you find the project interesting, and the result meets yours and the Graduate Committee's expectations.

Sincerely,

H. J. Brennan, Dean
College of Fine and Applied Arts

HJB:jag
cc: Professor Barschel
Grad File

PART II

The approach to 'viewing'.

In order for a viewer to achieve quick rapport with a stimulus of two dimensions, the sensual parameters should be theoretically limited to those two particular dimensions. A valid approach I have found to realize this end is a kind of hypnosis that desensitizes the body's receptors to feelings other than visual stimuli. Minor White of M.I.T. uses a related system for some of his beginning workshops. This "Zen" approach to concentration allows a viewer to be extra responsive to visual things because the other senses are not delivering inhibiting psychic energies that would cloud an otherwise intense concentration in seeing.

Psychologists have pointed to a cerebral mechanism governing the available psychic energies, and that only a certain level is usable at a given time without regard to the number and intensity of stimuli. In this connection, the general causes of schizophrenic regressions appear to stem from the fact that the child has never been able to complete properly his Freudian stages, most importantly the resolution of Oedipal and/or Electra complexes. The nagging desire to resolve those ends mounts as life goes on, and the required level of psychic energy reduces considerably the ability of the organism to mature and "become".

This multiple channel source of unresolved conflicts, everyday problems and other individual idiosyncrasies obviously leave very little psychic time and energy

left over for casual approaches to viewing visual material. It is imperative therefore if a viewer intends to seriously look at a picture he must be aware of his mental conditions at the time so that he may determine how he must conduct his approach for that particular time, and understand his response levels. I propose the following procedure as an experiment to concentrative seeing, with the admission that it is less than optimum because of technology costs.

Music should be present as people come into the room to be settled. The sound should be of a constant rhythm that possibly would contain a subtle but incessant beat. After the viewers have settled, the lights are shut off with the exception of one floodlight that is directed to light the speaker/producer. The music should be turned down and off at this time. The speaker introduces the subject and talks about "seeing" and some of the many inhibiting forces and contributing elements that are involved. Finally, a solution is introduced as a "concentrative" experiment where cooperation is solicited. The group is asked to arrange their bodies into a comfortable position..silence..low light ..the speaker suggests that the hands are to rest on the legs and part by part the limbs and torso lose their feelings... eyes are closed...the light goes out and projectors start... eyes open.

Production Report

Production started slowly in January with the printing of the picture chosen as the subject for viewing. The original negative was made earlier at Long Pond, N.Y. with an 8X10 view camera and Royal Ortho film. Development was completed by inspection in diluted Dektol at 72° F. for a slightly extended time to raise the contrast index.

The next preparative step was to start separating the tones to make the tonal maps as stated in the thesis proposal. To reach that end, a series of prints were made of varying contrasts and densities that could be used as paper negatives. From these paper negatives further prints were made on paper and on Kodalith film to complete the tonal map making. It was necessary to produce 42 eight by ten paper prints and 14 Kodalith transparencies for this portion of the job.

After this, the picture had to be viewed in all its separations and notes made about the personal responses to its graphic elements. The responses were the key to the whole project because they represented the "equivalents" that would have to be shot outside of the picture itself. For the notes, I needed part verbal and part storyboard records so that I might best visualize how to transfer the "stream of consciousness" to the motion picture medium. It was obvious at this stage that I would have to get my imagery from copying books, shooting real life, buying footage, marking on film, and processing to get some graphic effects not

available through commercial services.

During the initial period of shooting with motion picture film, I spent about thirty minutes perusing the print and its separations then went out with the Bolex and shot some short footages 'under the influence' of the picture, I hope. I expected that the abstracted mood quality would disappear as the project proceeded and demanded more objectivity, which might possibly interfere with spontaneous emotional reactions.

From the results, I initiated more complex storyboards for graphic continuity and to establish ideas about the requirements for the content of transition footages. I discovered in one of my junk boxes a radially cracked piece of heat-resisting glass that looked to be an appropriate 'light modulator' that I could employ. Fair Radio Sales in Ohio supplied me, for a quarter, with an achromatic coated objective lens that I removed from its gunsight mount, cleaned it and adapted it as a supplementary to my zoom so that I could photograph small illustrations or real life close-ups. Ralph Cagan, a local dealer in manufacturer's surpluses, supplied me with a scrap cylinder lens that can 'distort' images to different degrees, optically.

To further extend the kind of images possible on film to an imaginative viewing of a subject, I bought a motion film processing tank and experimented with the process control within the range of my knowledge of sensitometry. I did not spend a great deal of time with

it because only a small amount of finished film was required. I did discover that there is a world of new image controls waiting for a future film if a reasonable raison d'être presents itself. The film I did process provided footage that incorporated partial Sabattiers, colour changes, and reversals. I followed the recommendations of the Powell tank manufacturer and used standard Kodak D-19 developer with added potassium thiocyanate as a silver halide solvent for the first developer. The film I used was bulk packed by Astra and Superior with an ASA index of 50, daylight. Using the variable shutter on my Bolex B8, I could over and under expose a given scene. The consequence of this is that when I bleached the negative image before reversal I could cut it a bit short and where heavy exposure took place I could get Sabattier masking. Also, by the temperature and strength of the second developer, I could control the colour of the positive image between cold neutral and warm.

I felt these effects necessary because I have accustomed myself to previsualizing real subjects with some of these characteristics before I take a photograph and I view other works the same way. I presume then other viewers change the realities they see, so I should provide them with my own personal gestalts, for comparative evaluation.

About the seventh week of the quarter I was depressed because the visual material I had to date seemed not enough related nor appropriate to what was in my

mind. At this time I received more film back from processing, including slides that were to run paralalled to the motion images. Suddenly there seemed to be a gelling, and the elation produced some furious storyboarding of sections of scenes that fitted. Professor Meyer contributed the observation that the nature of the project suggested a kind of pacing that would progress from a rather boring slow beginning to a graphically dizzying climax. This approach I adopted immediately as the major guide to my editing.

A rather frustrating thing was happening to me that escaped my notice for some time and probably was the chief contributor to my aforementioned depression. As I worked with this one picture and its elements and was enjoying some of the responses, the responses kept changing from week to week. Once I had realized what was happening, I knew that I could never predict when this process would cease, if ever, so I should concentrate on making a neat package of my reactions to date.

At this point I had some 1100 feet of film and about 200 more feet to go to make me feel as though I could hit the editor. Before I cut the film however, I had to make a list of all the scenes on paper. This eases the job of editing and in some cases is an absolute must. It was especially important when dealing with continuity of graphics, colour and motion between different subjects, or as Eisenstein puts it, 'the character of the montage'.

As things came together I became aware of the possible magnitude of a project of this aspiration. I could only hope to demonstrate the principles I hold about it and perhaps look forward to doing a more professional job when the cost of technology is less prohibitive and I can spend at least two years for the undertaking. As it is, the cost of materials for this work will exceed 275 dollars.

Just before cutting the film, about a week and a half before submission, Prof. Meyer suggested I should include at least one print on paper of a typical transition of graphics that occurs in the production film. I searched the stock footage for extra scenes of the types that demonstrated that kind of continuity and made normal splices. I took ten frame sequences to the darkroom and put them in the enlarger so that I was able to make a negative one Commercial Ortho film, by normal projection. A paper print was consequently made from this larger negative for inclusion in this report and is labelled "typical graphic transition".

During the whole of the last quarter I translated some of the graphic effects of the Sabatteir process into my works in painting class. I was reluctant to do this at first, but once I had devised a method, I began to learn a great deal about the image character that isn't obvious in smaller reproductions. The structure of nature produced in this way has its own peculiar quality that seems to please the vision of both instructors and janitors.

The thesis project and the painting involvements started to interact strongly and have effectively set my course for some time to come.

Prof. Barschel's suggestion of running a set of slides parallel to the movie image required making Kodalith transparencies for cutting and mounting as reflections of how the image was photographically altered. These films were produced both by copying with a view camera and by direct contact with a paper print. Selected areas were then ruthlessly cut out and mounted in slides ready for projection. The material was chosen for its character of decorative value or fine art, and perhaps represented a singular creative source of nature abstraction.

For titles I laid down Para-Tipe on acetate and photographed it by transmitted light. John Varnecky set credits for me in the type lab and from his proofs I make film copies for subsequent photography. As the shooting terminated the final count on prints was 60 and Kodaliths, 35.

The editing of the footage had a number of little frustrations that ate up valuable time. The most consistent was disengagement of film reels from the locking pin on the shafts of the editor. That caused much useless wheel spinning and loose film. Next, the field of view of the Muray editor is slightly less than that of the projector and some "light struck" edge defects slipped into the master reel and had to be marked and removed later. In the last stages, late one evening, the editor bulb burned out and

ceased the operation for the night.

I tried to do the major part of the editing in a concentrated time so that the spirit would not change appreciably, compared to the earlier shooting experience. Five consecutive days with about eight hours each worked the footage down to my planned visual statement ready for trimming and polish. I started to try and make the slides work with the film and realized that this is an enormous task.

At the last it was decided that the idea of slides would be fine if the whole production had started with that in mind but it doesn't work as an ad hoc extra. The final production is an 8mm motion picture that runs about 28 minutes, depending on the speed setting.

At this point I am satisfied with the result as a pilot project and very anxious to embark on a following film that will be possibly saleable to educational institutions.

Of course pictures provide us with more cues from reality itself than the arbitrary hen tracks we call "words". But the basic error is to fail to realize that the meanings of pictures are not in the pictures but rather in what we bring to them.

Paul R. Wendt

GLOSSARY

"Becoming"

Gordon Allport has used this word both as a book title and as the general term to describe a process of intellectual and emotional development. His thesis presumes that the Freudian problems of early childhood need to be resolved or one's life is marred by the constant subconscious effort to complete these infantile drives. That of course is what Freud had already said, but Allport added that the quantity of psychic energy used up by these old drives limits the rate or even the possibility of a human to become something greater than a child. He points out that when resolvment is completed, one is free of inhibiting psychic forces to "become" a constantly progressing intellect and a mature and humane individual.

Contrast Index

is the decimal equivalent equal to the proportion of y/x that is derived from the average slope of the characteristic response curve of a photo sensitive system. Its significance to this project is the relative control of total value range possible by knowing the contrast index value with different process times, as supplied by the film manufacturer.

GLOSSARY (con't.)

Dektol

is a developer packaged by Eastman Kodak and is similar to D-72, a print developer. Dektol seems to have fewer staining properties with extended use.

Equivalence

in this writing is referred to the meaning given by Alfred Steiglitz to some of his photographs of clouds. He said that when a picture functions as an equivalent, the image means not only what it superficially states, but what else it implies. For instance, a picture of clouds can be first clouds, then on examination perhaps a head looms out of the structures and on later viewings one tends to see the head before the clouds. The picture has become an equivalent to that particular viewer.

Gestalt

is a theory that physiological, psychological and biological events occur as a result of patterns evolved in the interrelationship of experiences.

Kodalith

is a fine grained, orthochromatic, very high contrast graphic arts film.

GLOSSARY (con't.)

Montage

is the word Eisenstein used in reference to the building of images in real time, both as a series of consecutive physical pictures and as emotional images, by cutting sequences together. The continuity of tones, motions, colours and graphics through scenes produces its own effects and is contrasted to the effects of discontinuities such as sudden reversed motion or colour or short clips or even extended quietude. The combination of these expectations and surprises combine to produce a montage of images that present the ideas of the film's producer as clearly and excitingly as possible.

Sabattier Effect

is produced by re-exposure during the development of a photographic image. The symptom of the effect is an image that displays half positive and half negative tonalities and provides a crisp line of white outlines in areas where there was a sharp change in density. In this project I made several generations of Sabattier to heighten the line effects of the original image. It is often misnomered "solarization", another reversal effect of quite different quality that is extremely difficult to accomplish.

GLOSSARY (cont.)

Silver Halide

is the light sensitive silver bromide in the films and papers of photography. It is called "halide" because iodine and chlorine are introduced in small quantities to the main body of bromine to control the quality and sensitivity of the consequent emulsion. Silver halide solvents are used both in developers and fixers for process controls.

Tone

is used in photography to refer to the relative reflectance of a picture area. Artists usually use the word VALUE to describe the same quality. In both cases I presume that if a hue is involved, the tone or value is referenced as if the hue were reproduced as a neutral.

PART IV

INDEX OF ILLUSTRATIONS

1. Prints of the titles used. Originally, Para-Tipe.
2. Darkroom printing.
3. Credits, set up in type lab then photographed.
4. Single framing flat copy for equivalents clips.
5. Straight print.
6. Storyboarding.
7. Mid tones only.
8. Highlights only.
9. Shadows only.
10. First generation Sabattier.
11. Second.
12. Third.
13. Fourth.
14. Fifth.
15. Sixth.
16. Sixth, variation.
17. Derivation.
18. High contrast.
19. Typical film graphic transitions.
20. Sabattier derived paintings and film editing.

REVELATIONS

the
ANALYSIS
and

SYNTHESIS
of a

PICTURE

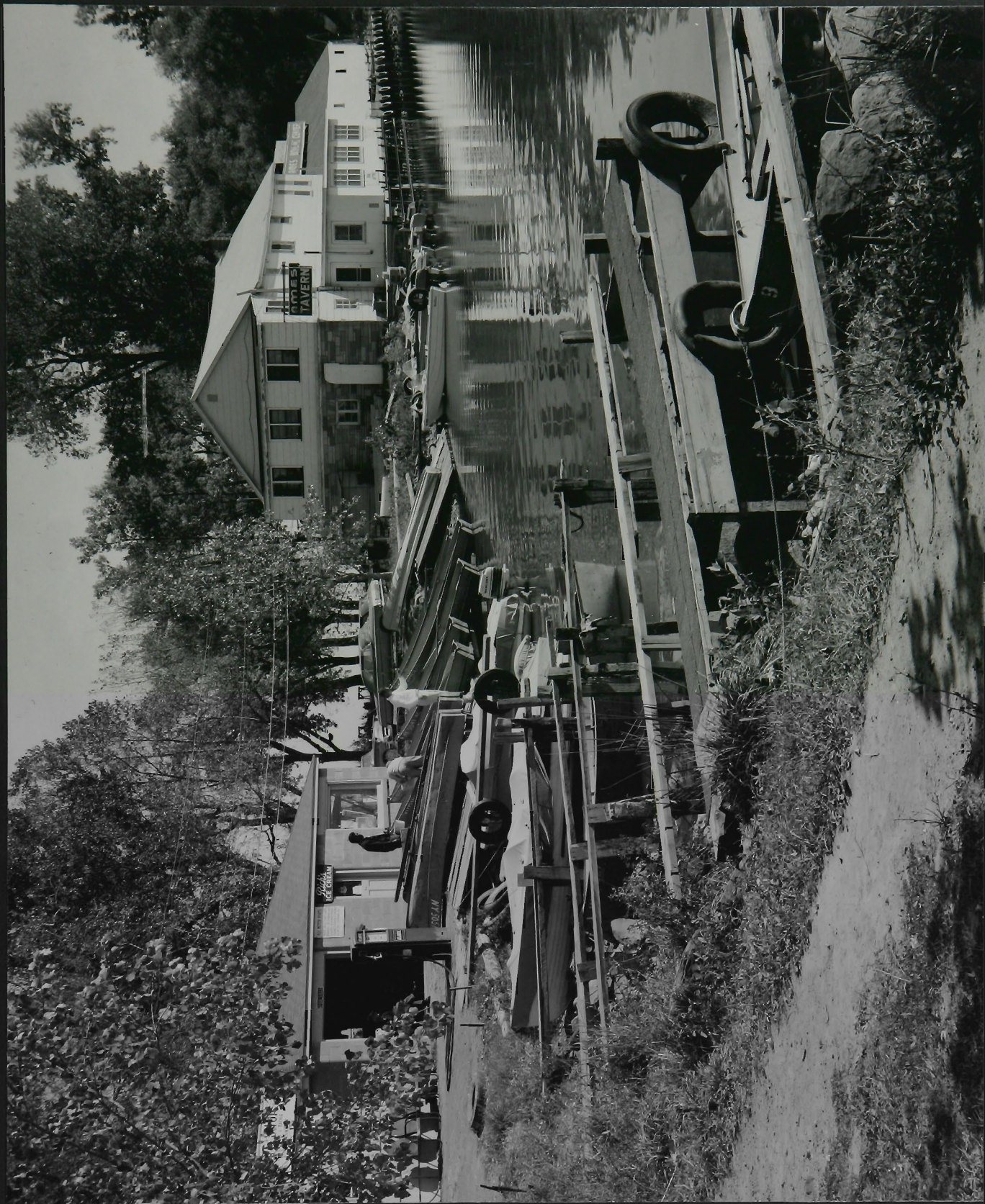


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by
F. William Scanlon
1967

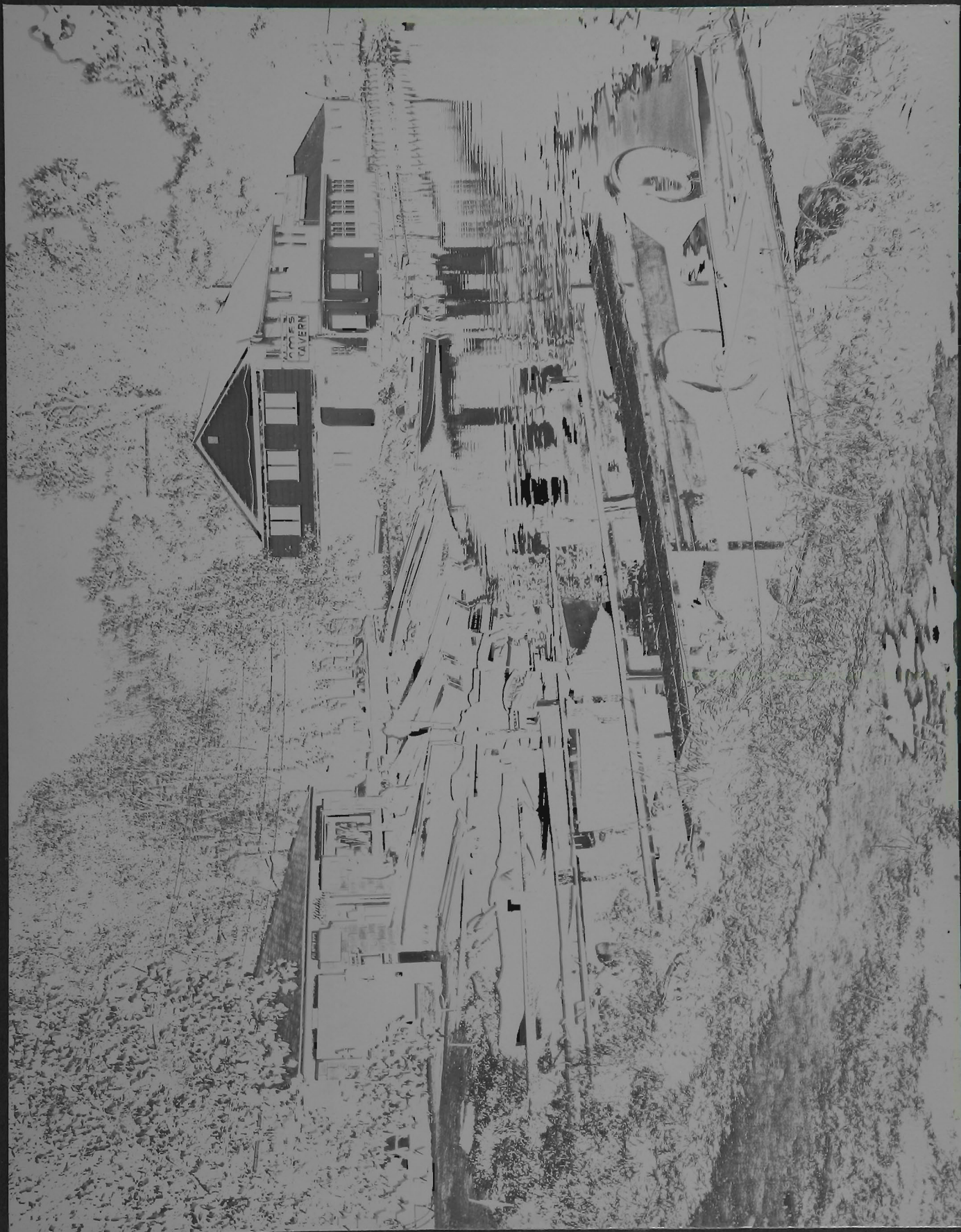
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THESIS REQUIREMENTS OF THE
GRADUATE SCHOOL,
COLLEGE OF ART AND DESIGN
Rochester Institute of Technology

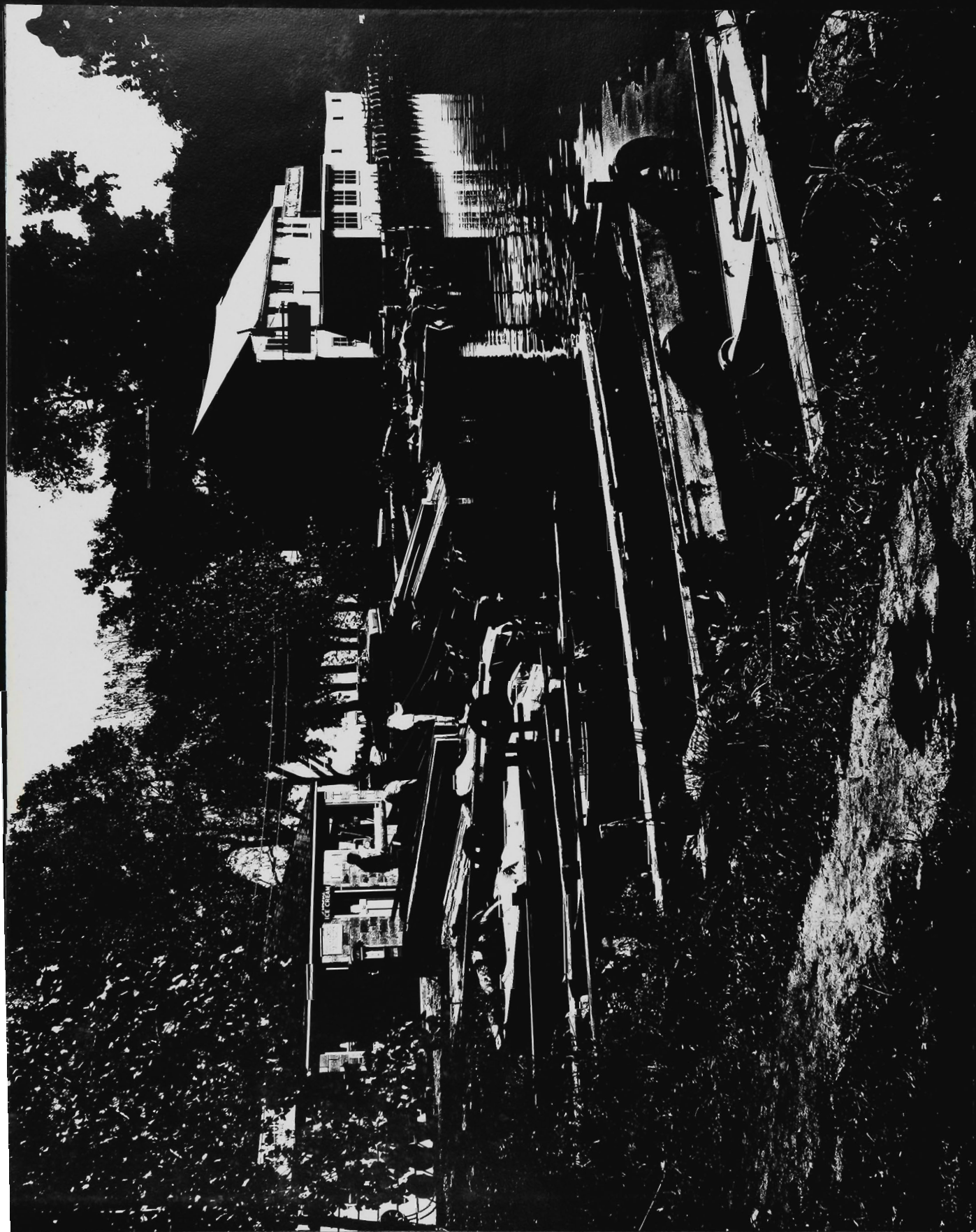
Advisers
Prof. H. J. BARSCHEL
Prof. D. ROBERTSON
Prof. F. MEYER

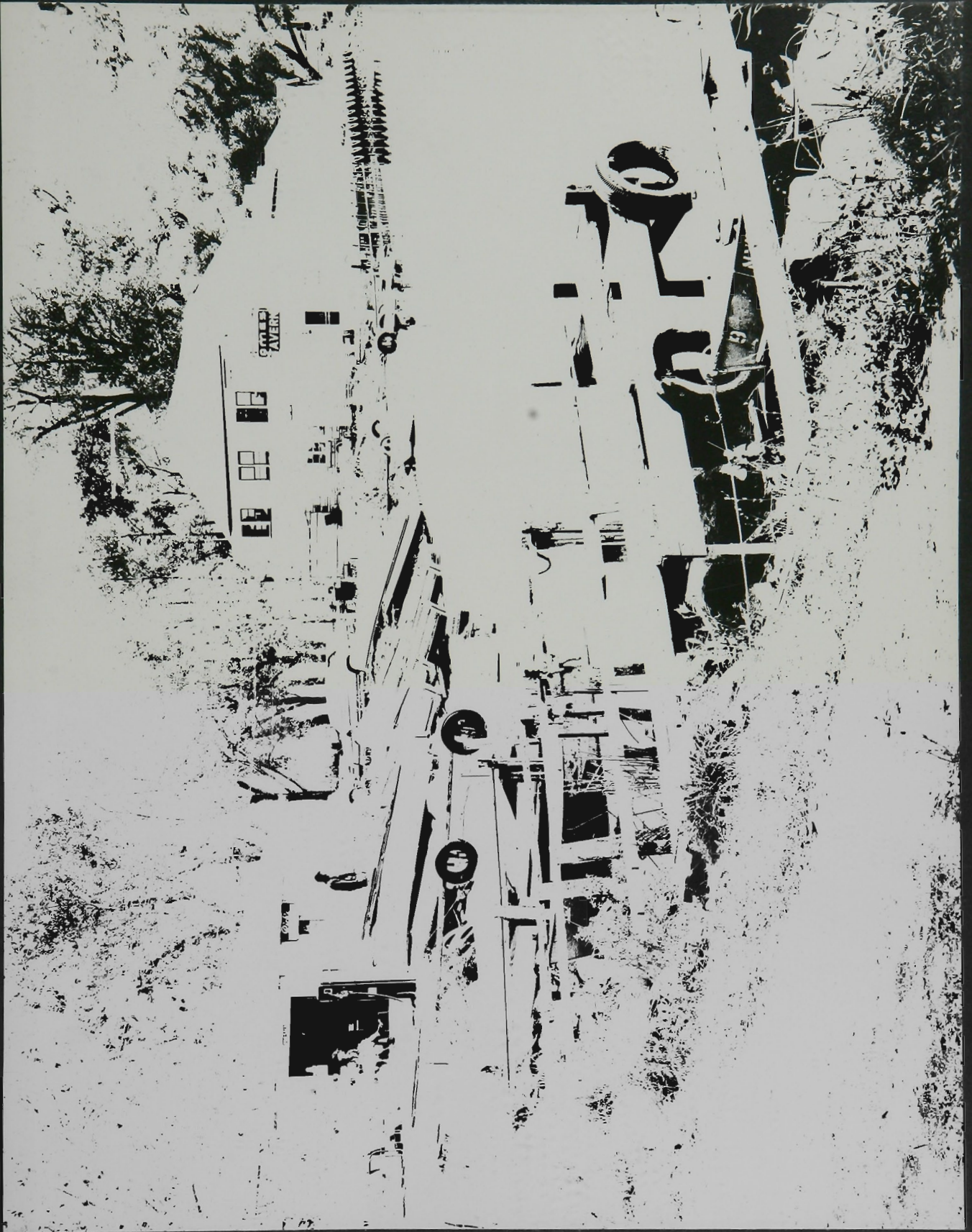






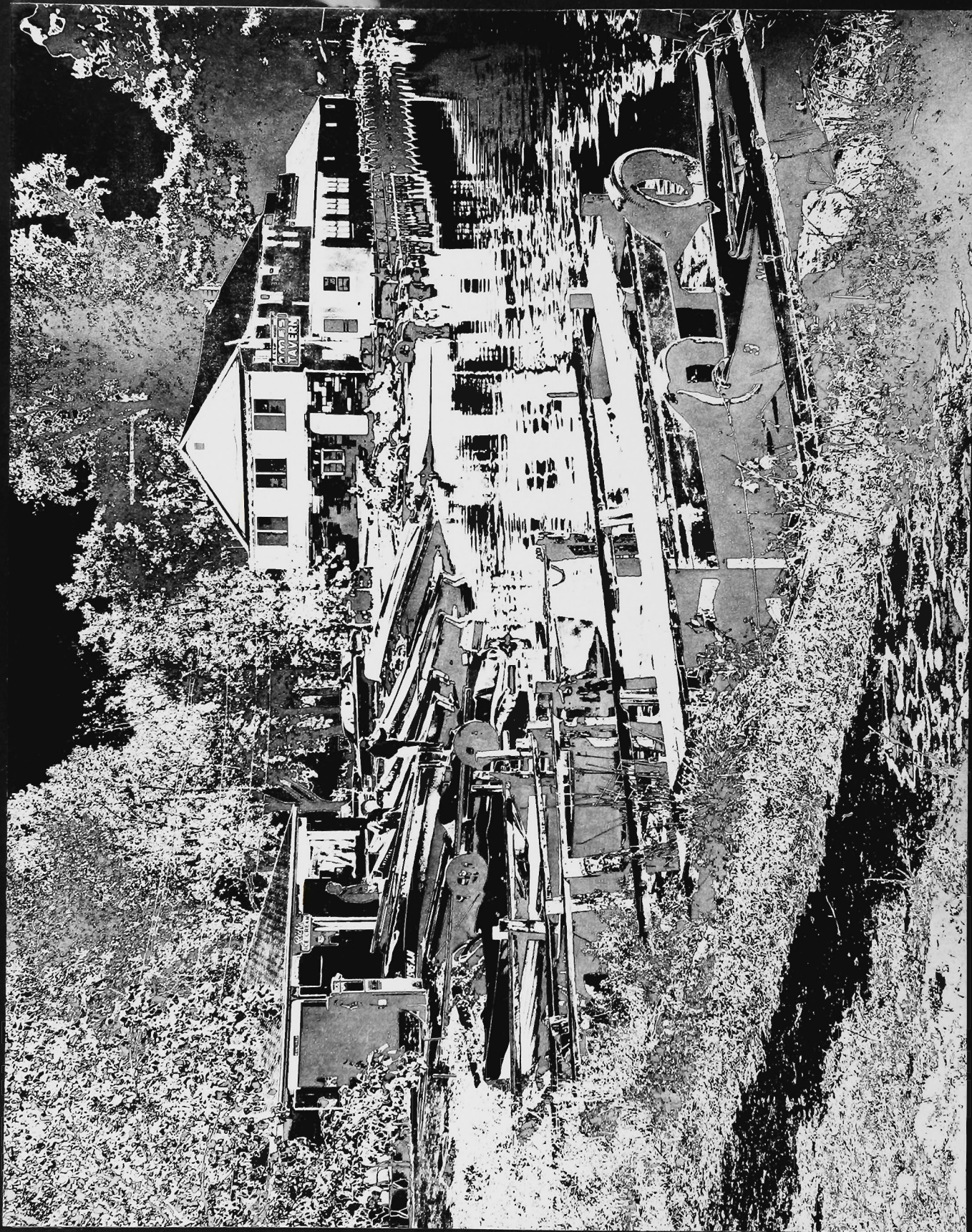




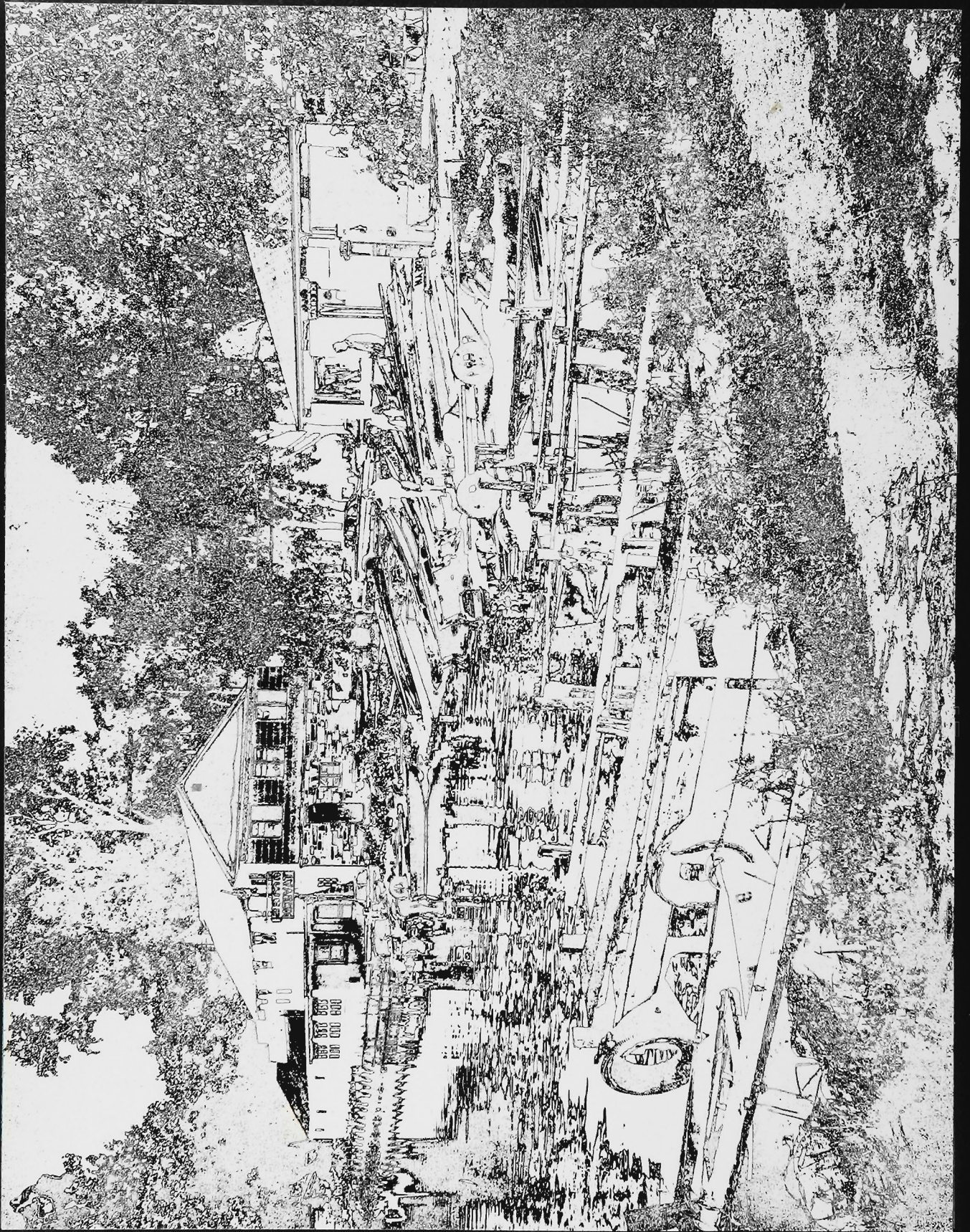


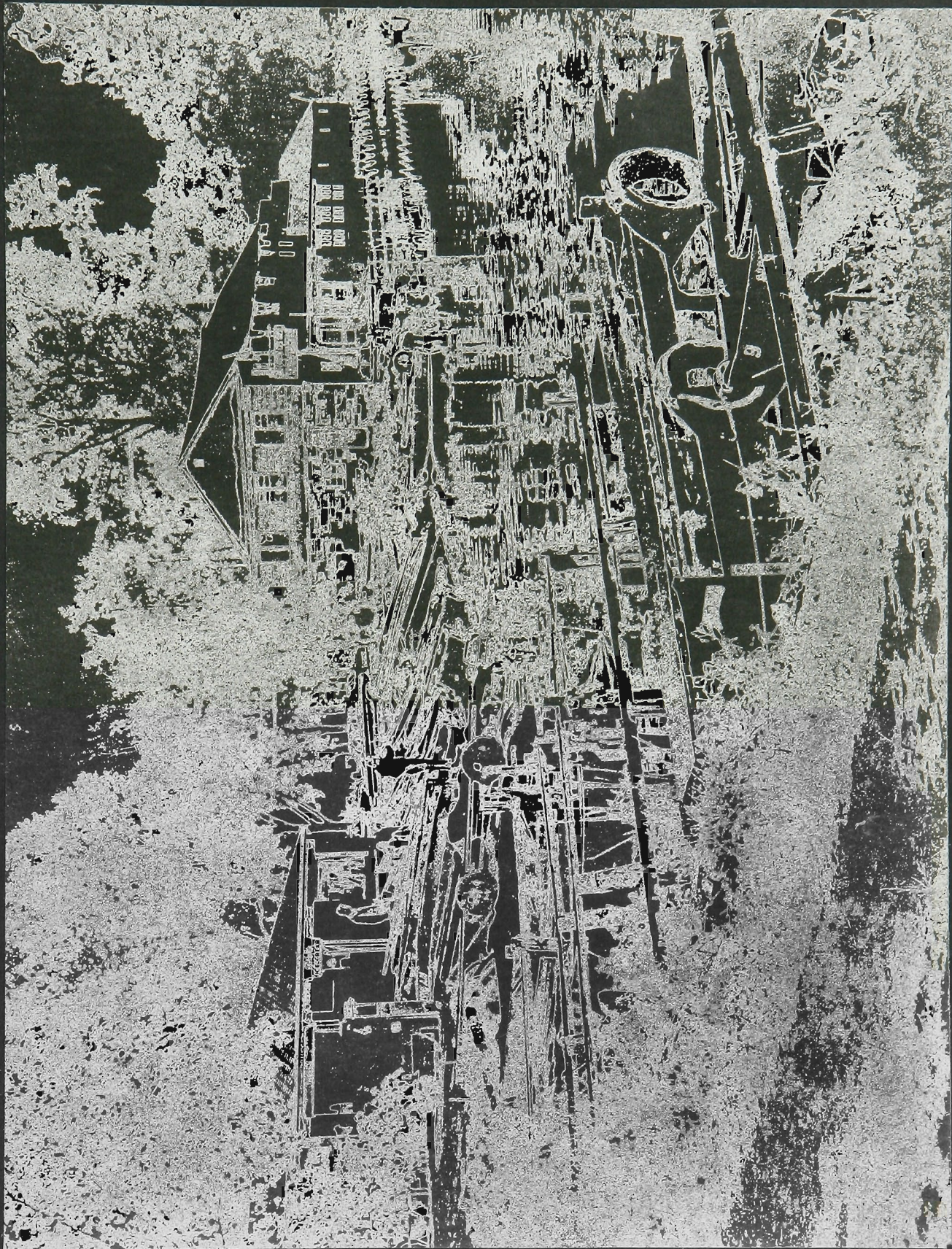


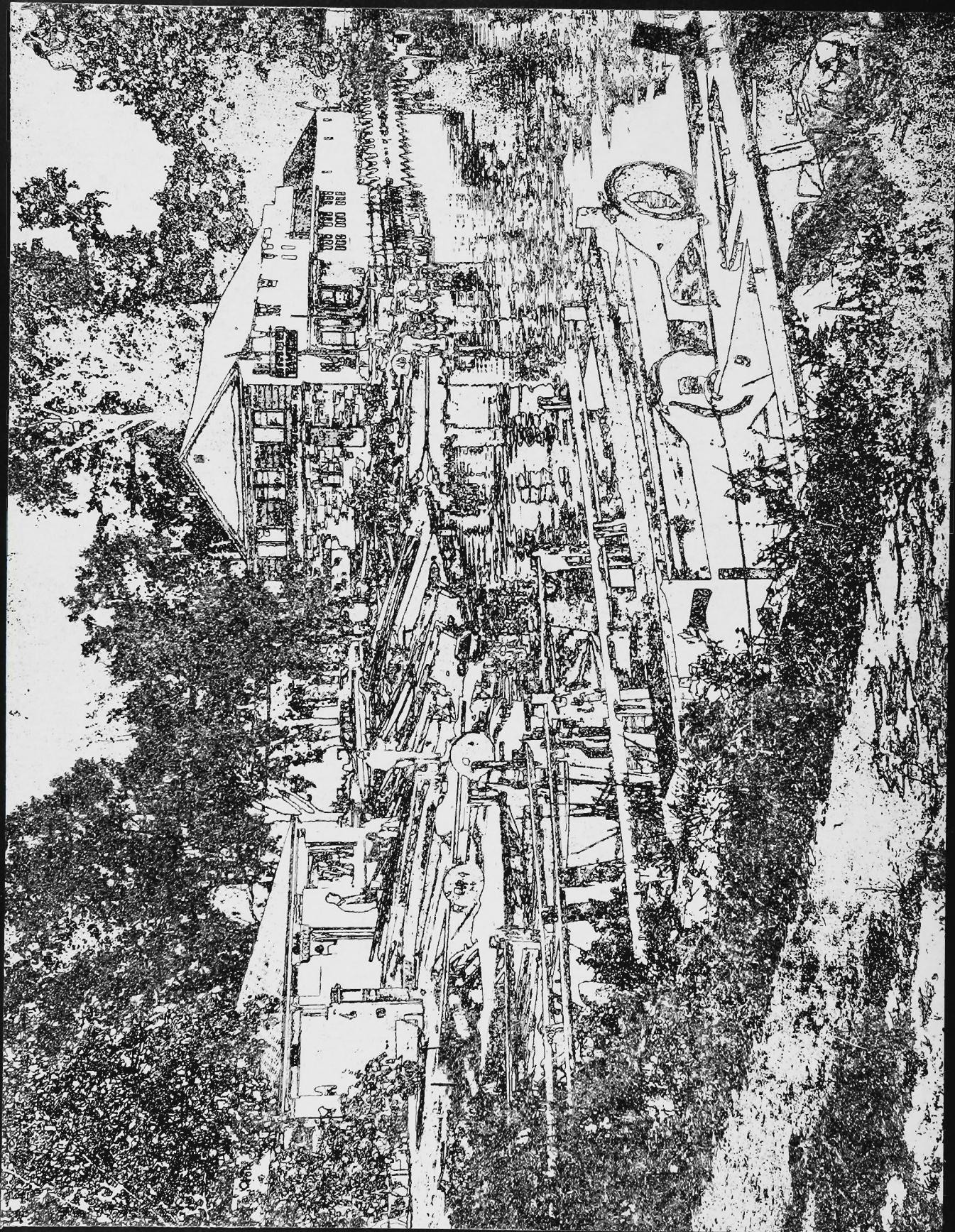




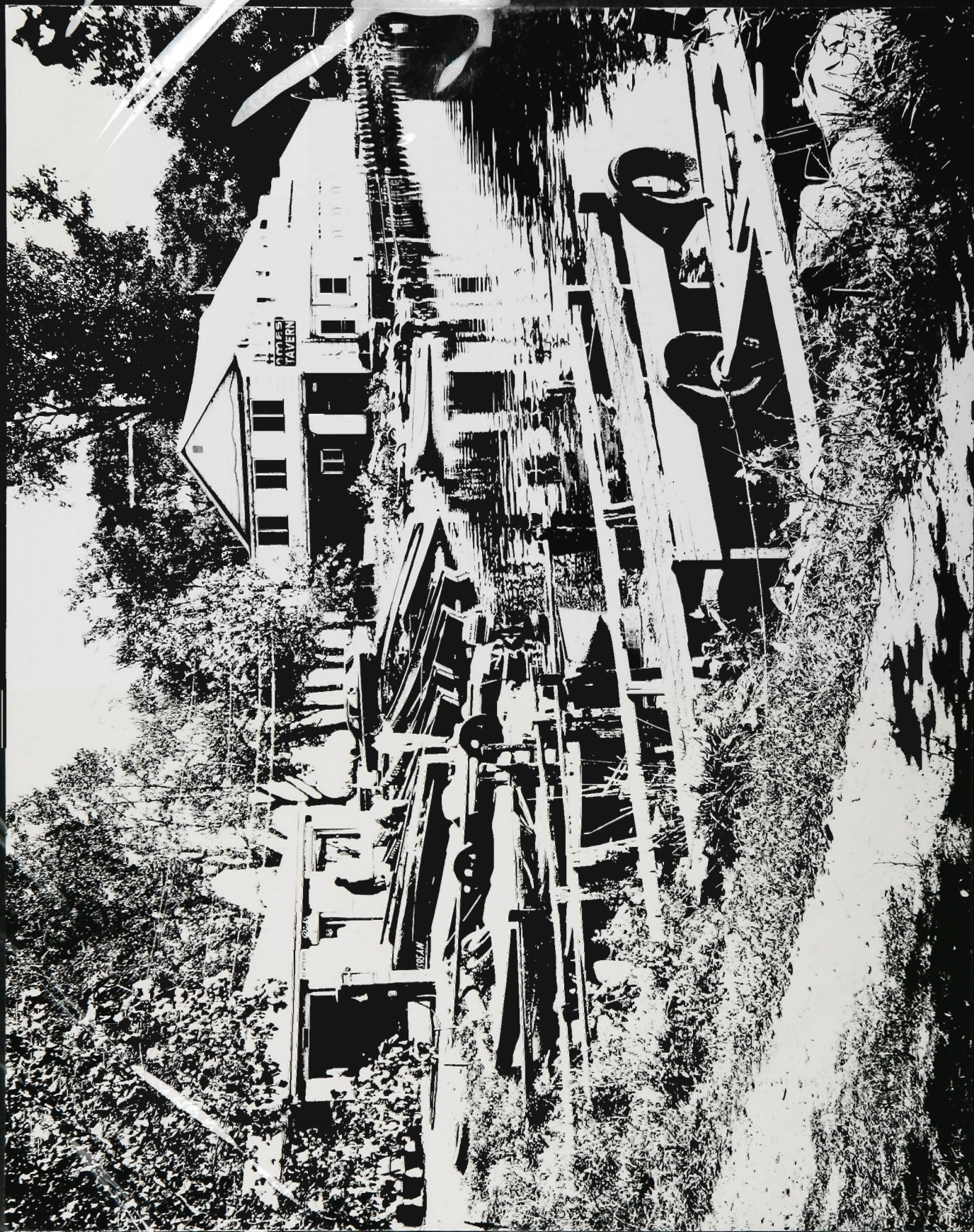
















PART V

A personality is nothing but a persisting error.

Max Jacob

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